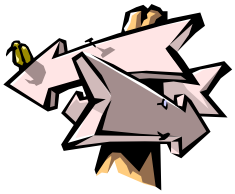
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Atlanta Federal Center
61 Forsyth Street
Atlanta, Georgia 30303-8960

Groundwater Fact Sheet: Informed Use of Private Wells

Former ITT Industries Superfund Site
Madison, Florida **March 2004**

Background



The Former ITT Thompson Industries Superfund Site is located in the northeastern section of the City of Madison. The Site is owned by Madison Industries and consists of approximately 3 acres, including vacant manufacturing plant buildings, an office trailer, a small storage shed, and a parking area.

The Former ITT Thompson Industries facility was leased by ITT and operated by ITT as an automobile stamping business at this location from 1970 to 1989. ITT sold the business in 1989, and the plant closed in 1991. Specifically, the plant manufactured wheel ornamentation for cars, including wheel covers and wire wheel products. More recently, the facility has been used to store cypress mulch; however, no business activities are currently occurring at the facility.

In November 1998, EPA and ITT Industries, Inc. entered into an Administrative Order by Consent to allow ITT Industries, Inc. to conduct an Expanded Site Investigation/Remedial Investigation/Feasibility Study (ESI/RI/FS). The purpose of the ESI/RI/FS is to characterize the full nature and extent of contamination, evaluate human health and ecological risks associated with the Site, and identify and evaluate possible remedial alternatives.

The Final ESI/RI/FS work plan was approved by EPA on July 29, 1999. The plan included the performance of 20 primary tasks. The main tasks related to groundwater, the emphasis of this Fact Sheet, include the following actions:

1. Installation of wells to assess the Shallow and Intermediate zones of the Surficial Aquifer (i.e., Shallow zone - 5 to 20 below land surface (bls); Intermediate zone - 28 to 83 feet bls).
2. Installation of wells to assess the upper Floridan Aquifer (i.e., beginning at about 90 feet bls).
3. Implementation of a Quarterly Groundwater Monitoring Program (8 Events).

Transition from Private Wells to Municipal Water

Trichloroethylene (TCE) was used at the ITT Thompson facility during 1970 to 1974. TCE is commonly used to remove grease or oils. Investigations, beginning in the mid 1990s, have confirmed the presence of chlorinated (e.g., TCE) and nonchlorinated (e.g., benzene) volatile organic compounds in the Surficial Aquifer and the upper portion of the Floridan

Aquifer.

In addition, TCE was detected in private wells above the maximum contaminant level (MCL)[1] in the Yellow Pines subdivision, about a ½ mile to the east of the Former ITT Thompson Site and about 2 miles south of the Madison County Sanitary Landfill.

In 1995, a health advisory was issued, and the City of Madison and the Florida Department of Environmental Protection (FDEP) extended municipal water lines to provide residents with an alternate drinking water supply.

Question & Answer
(Informed Use of Private Wells)

1. Can I drink the water from my private well?

Although past actions have ensured that municipal water was substituted for private well water, EPA understands that many private wells in the Yellow Pines subdivision remain available for use by unsuspecting new residents/owners.

This Fact Sheet serves as a reminder that your private well water should not be used for drinking water purposes unless the water is tested and found to be safe for drinking.

2. Can I use my private well for purposes as washing a car, watering my lawn or garden or filling a pond or pool?

EPA advises caution during the use of untested groundwater for non-drinking water purposes (e.g., irrigation, filling swimming pools, etc.) due to the high levels of some volatiles observed in past well sampling and the possible routes of entry such as incidental ingestion and dermal exposure.

3. Can I eat the fish from Mill Pond?

There is no short or clear answer to this question. The risk to someone eating fish from Mill Pond is driven by three major factors: (1) the type of contaminant present, (2) the amount, or concentration, of contaminants in the edible portions of the fish, and (3) how often you eat fish from Mill Pond. Another important factor is who is eating the fish - very young children, pregnant women or nursing mothers, and even some older people can be at higher risk than the general population.

Because this is such a complex topic, models have been developed to simulate what the risk to the public may be in different situations. Some of these risk assessment models are now being used by consultants for the former ITT Thompson Site in Madison. While some of this work is still being done, we can use the findings to try and answer the "Can I eat the fish?" question.

A conservative model has been used to calculate the possible amount of contaminants in Mill Pond fish based upon the amount of contaminants found in the pond water. Please be aware that actual fish tissue samples have not been

[1] MCLs are found in the National Primary Drinking Water Regulations. They are legally enforceable standards that apply to public water systems. Primary standards protect public health by limiting the levels of contaminants in drinking water.

collected from Mill Pond, and the amount of contaminants in fish are only projections based upon models that are designed to be extremely protective of even the most sensitive public's health.

Based upon these initial model results, there may be an unacceptable risk from vinyl chloride (a chemical classified as a volatile organic compound and associated with the ITT Thompson Site) due to eating fish from Mill Pond on a regular basis, especially for people who use fish from Mill Pond as a main, consistent source of food. Again, this is based upon conservative modeling and not actual fish tissue. More importantly, it has been EPA's experience at other sites that volatile organic compounds, like vinyl chloride, do not actually build up, or accumulate, in the edible portions of the fish at levels of concern for people who eat fish. In other words, while there may be compounds present in the water that - when modeled - suggest there may be a risk from eating fish from Mill Pond, EPA's practical and historical experience suggests that the surface water concentrations in Mill Pond are not at levels that should be of concern to people who eat fish.

EPA also wants to take this opportunity to talk about risks from fish consumption in the United States in general and **not** specifically associated with the former ITT Thompson Site. If you are pregnant, a nursing mother, or plan to become pregnant soon, you and children under 6 years of age are sensitive to the effects of contaminants. In 2001, EPA issued a national advisory recommending that these sensitive groups limit consumption of all freshwater fish to one meal per week due to mercury. Although this recommendation is related to protecting people from mercury, a contaminant which is **not** related to the ITT Thompson Site, people in these sensitive groups may wish to follow the national U.S. EPA recommendations, especially in areas where fish have not been tested. For most other healthy adults, this recommendation may actually be overly conservative.

Activities Since the March 2003 Fact Sheet

- The Human Health Risk Assessment for the Site was finalized.
- The Ecological Risk Assessment (Steps 1-3) for the Site was finalized.
- The Remedial Investigation Report for the Site was finalized.
- The Preliminary Remedial Goal Objectives (RGO) Technical Memo, covering groundwater and soil, was finalized.

All of the above documents can be found in the Madison Public Library.

Next Steps

With approval of the Remedial Investigation Report, Human Health Risk Assessment and Ecological Risk Assessment (Steps 1-3), the Site has entered the Feasibility Study (FS) phase of work while also continuing to conduct periodic monitoring of groundwater at and about the Site. It is in the FS that cleanup alternatives are assessed and

compared. The FS will ultimately include a recommended cleanup approach. Once EPA is satisfied with the recommended cleanup approach, a Proposed Plan will be developed and presented to the public for comment. A Record of Decision (ROD) is then written selecting a cleanup approach.

The following is a brief status of FS activities for the two main environmental media contaminated by past releases from the Site:

- **Sediment:** The draft FS to address the sediments in the Unnamed Pond to the southwest of the Site is due for submission to EPA in April 2004.

  After completion of the FS for the Unnamed Pond, the Proposed Plan will be written and public noticed and the Record of Decision (ROD) completed. The Proposed Plan and ROD for the Unnamed Pond may not occur concurrently with the groundwater Proposed Plan and ROD discussed in the following bullet.

- **Groundwater:** A Pilot Test Work Plan was submitted to EPA in January 2004. A Pilot Test is needed to ensure that the FS addressing contaminated groundwater contains site-specific analysis and to ensure that the remedy recommended in the Proposed Plan can be successful. Once finalized, the Pilot Test Work Plan will be included in the Madison Public Library.

  The work plan outlines an 18 month study to evaluate the effectiveness of Enhanced Reductive Dechlorination (ERD) technology. Reductive Dechlorination is a process by which microbes can degrade chlorinated volatile organic compounds in groundwater. Enhanced Reductive Dechlorination can accelerate this process through the introduction of an organic carbon source, such as molasses, creating an in-situ reactive zone in the aquifer. Twelve injection events during the pilot test are currently planned. The approximately 40 injection points will be onsite or just offsite along the southern and southwestern property line.

  During the Pilot Test, monitoring wells will be repeatedly sampled to gauge the effectiveness of Enhanced Reductive Dechlorination.

  After completion of the Pilot Test Work Plan, the data will be used to prepare the FS for shallow soils and groundwater. After the groundwater FS is submitted and approved, the Proposed Plan will be written and public noticed and the ROD will completed.

Contacts

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Local Document Repository

Madison Public Library
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OFFICIAL BUSINESS
PENALTY FOR PRIVATE USE, $300

FORMER ITT/ FACT SHEET
WHAT'S INSIDE???

Site Background
Informed Use of Wells
Next Steps
Contact Information